

Appl. No.: 10/644,358
Amendment filed December 9, 2005
in response to September 9, 2005 Office Action
Docket No.: 67493/52

Amendments to the Drawings:

The attached sheets of drawings includes changes to Figs. 1A-1C, 2, 3A-3C and 4. In particular, these figures are now designated by the legend --Prior Art--.

REMARKS

Claims 1-93 are pending. By this Amendment, claims 1, 33 and 65 are amended.

Reconsideration based on the following remarks is respectfully requested.

The Drawings Satisfy All Formal Requirements

The Office Action objects to the drawings based on informalities. The drawing are corrected to obviate this objection. Withdrawal of the objection to the drawings is respectfully requested.

The Claims Define Patentable Subject Matter

The Office Action rejects claims 1-93 under 35 U.S.C. 103(a) over "Applicant's Admitted Prior Art" (AAPA) in view of U.S. Patent No. 5,407,524 to Patrick et al. (copy attached). This rejection is respectfully traversed.

AAPA, alone or in combination with Patrick, does not disclose or suggest a method for detecting endpoint of a plasma-assisted etch process including, inter alia, directly detecting a predetermined change in at least one of parameters of a plasma-assisted etch process, and controlling the plasma-assisted etch process based on the direct detection of the predetermined change in the at least one of the parameters, as recited in claim 1, and as similarly recited in claims 33, and 65.

Instead, Patrick discloses a method for detecting endpoint by referencing first and second positions of matching components of an AMN. See column 6, lines 20-30 of Patrick. In particular, Patrick teaches detecting the rotational position of a variable capacitor, and determining the end point when the change in rotational position has

reached a predetermined amount. See column 5, lines 64-68 of Patrick. In contrast, according to the present invention, rather than measuring the position of components of an AMN, the changes in output signals of components of the AMN are directly measured. For example, see paragraph [80] of the present application. These changes in predetermined AMN parameters are already monitored and displayed by the AMN for the purpose of matching the source and load impedances of the plasma-assisted etch system, and thus additional sensors, such as the positional sensors used in Patrick's system, are not necessary.

For at least these reasons, it is respectfully submitted that independent claims 1, 33 and 65 are allowable. The dependent claims are also allowable for the reasons discussed, as well as for the additional features they recite.

In light of the foregoing, Applicants respectfully request that a timely Notice of Allowance with respect to all of the pending claims be issued in this case. Authorization is given hereby to charge any deficiency or credit any overpayments to Deposit Account No. 01-1785.

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Respectfully submitted,

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Dated: New York, New York
December 9, 2005

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